

PATENT COOPERATION TREATY



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

REC'D 27 OCT 2004

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Applicant's or agent's file reference GB030007	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA416)	
International application No. PCT/GB 03/05438	International filing date (<i>day/month/year</i>) 12.12.2003	Priority date (<i>day/month/year</i>) 26.06.2003
International Patent Classification (IPC) or both national classification and IPC G06F1/00		
Applicant INTERNATIONAL BUSINESS MACHINES CORPORATION et al.		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 4 sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>		
Date of submission of the demand 11.02.2004	Date of completion of this report 26.10.2004	
Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Meis, M Telephone No. +49 89 2399-2505 	

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EXAMINATION REPORT**

International application No. **PCT/GB 03/05438**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-13 as originally filed

Claims, Numbers

1-15 received on 24.09.2004 with letter of 21.09.2004

Drawings, Sheets

1/6-6/6 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-15
	No: Claims	
Inventive step (IS)	Yes: Claims	1-15
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-15
	No: Claims	

2. Citations and explanations

see separate sheet

SECTION V

1. Reference is made to the following documents:

- D1: WO 01/22299 A (KEENE CATHERINE M ;LIN RAYMOND (US); AGILE SOFTWARE (US); SADHURRE) 29 March 2001 (2001-03-29)
- D2: US-A-5 414 852 (KRAMER PAUL H ET AL) 9 May 1995 (1995-05-09)
- D3: US-A-5 864 871 (MCCARTHY MARY ELLEN ET AL) 26 January 1999 (1999-01-26)
- D4: US 2003/061216 A1 (MOSES FRED) 27 March 2003 (2003-03-27)

The subject-matter of cl. 1, 8 and 14 differs from the disclosure of document D1, which is regarded as being the closest prior art to the subject-matter of cl. 1, 8 and 14, essentially in that the information elements of the business entity definitions each having permission elements associated therewith and the steps/means of determining and of denying using these permission elements.

The subject-matter of claims 1, 8 and 14 is therefore new (Article 33(2) PCT).

The problem to be solved by the present invention may be regarded as providing access control to information elements of information rather than to the information only.

The solution to this problem proposed in claim 1, 8 and 14 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

Documents D2 and D3 do mention neither the problem, nor a solution thereto.

Though document D4 discloses controlling access to information elements (elements of an XML document) of an information (XML document) each of the elements having permission elements associated therewith, the disclosure lacks permission details associated with the information and, contrary to the invention, access control is done in the context of user authentication prior to receiving any user information access request. It is therefore considered that the teaching of document D4 therefore cannot be applied in an obvious way to the disclosure of

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document D1.

Claims 2 - 7 and 9 - 13 are respectively dependent on claims 1 and 8 and as such also meets the requirements of the PCT with respect to novelty and inventive step.

Cl. 15 contains all the features defined in cl. 1 and such also meets the requirements of the PCT with respect to novelty and inventive step.

2. Cl. 1 is based on original cl. 1 and 3. Cl. 2 - 6 are based on cl. 2, 4 - 6 and 7 respectively. Cl. 7 is based on the original description, p. 8, l. 34 - p. 9, l. 32. Cl. 8 is based on original cl. 8 and 10. Cl. 9 - 13 are based on original cl. 9, 11 - 13 and 14 respectively. Cl. 14 is based on original cl. 15 and original cl. 3. Cl. 15 is based on original cl. 16.
3. The claimed method, registry, registry service and computer program product are industrially applicable.

CLAIMS

1. A method for a registry of business entity definitions to handle user requests to access business entity definitions, the method comprising steps of:

receiving a request from a user to access a business entity definition;

obtaining, from data associated with the request, the identity of the user;

determining, from permission details associated with the business entity definition and the identity of the user, whether the user has permission to access information in the business entity definition; and

denying the user access to information in the business entity definition if it is determined that the user does not have permission;

wherein the information in the business entity definition comprises a plurality of information elements each having permission details associated therewith; the step of determining determines from permission details associated with each information element whether the user has permission to access that information element; and the step of denying denies the user access to those information elements for which it is determined that the user does not have permission.

2. The method of claim 1 wherein the request specifies a search criteria, and method comprises the further step of:

using the search criteria to locate the business entity definition and to determine what information in the business entity definition the user wishes to access, and then determining whether the user has permission to access the information that the user wishes to access.

3. The method of claim 1 or claim 2, wherein the determining step further determines whether a user has permission to access an information element from an access policy and permission details associated with a different information element.

4. The method of claim 3 wherein the information elements are in a hierarchy and the determining step determines that a user does not have permission to access a first information element if permission details associated with one or more second information elements directly beneath the first information element in the hierarchy indicate that user does not have access to one or more of the second information elements.

5. The method of any one of the preceding claims, comprising the further step of:

locating the permission details in a file system in which the permission details are in a location in the file system which is defined according to the information element with which they are associated.

6. The method of any one of the preceding claims, wherein the registry is a UDDI registry and the information in the business entity definition is a business entity information element, the business entity information element containing one or more business service entity information elements, each business service entity containing one or more binding template information elements and each binding template containing one or more references each referring to a technical model information element.

7. The method of claim 1 wherein a first information element is contained by a first container information element and contains a reference to a second information element that is not contained by the first container information element, and wherein the step of determining whether the user has permission to access the second information element is performed from permission details associated with the first container information element and permission details associated with the second information element.

8. A registry of business entity definitions for handling requests to access business entity definitions, the registry comprising:

means for receiving a request from a user to access a business entity definition;

means for obtaining, from data associated with the request, the identity of the user;

means for determining, from permission details associated with the business entity definition and the identity of the user, whether the user has permission to access information in the business entity definition; and

means for denying the user access to information in the business entity definition if it is determined that the user does not have permission;

wherein the information in the business entity definition comprises a plurality of information elements each having permission details associated therewith; and wherein the means for determining determines from permission details associated with each information element whether the user has permission to access that information element; and wherein

the means for denying denies the user access to those information elements for which it is determined that the user does not have permission.

9. The registry of claim 8 wherein the request specifies a search criteria, and the registry further comprises:

means for using the search criteria to locate the business entity definition and to determine what information in the business entity definition the user wishes to access.

10. The registry of claim 8 or claim 9, wherein the determining means further determines whether a user has permission to access an information element from an access policy and permission details associated with a different information element.

11. The registry of claim 10 wherein the information elements are in a hierarchy and the access policy specifies that a user does not have permission to access a first information element if permission details associated with one or more second information elements directly beneath the first information element in the hierarchy indicate that user does not have access to one or more of the second information elements.

12. The registry of any one of claims 8 to 11, further comprising:

means for locating the permission details in a file system in which the permission details are in a location in the file system which is defined according to the information element with which they are associated.

13. The registry of any one of claims 8 to 12, wherein the registry is a UDDI registry and the information in the business entity definition is a business entity information element, the business entity information element containing one or more business service entity information elements, each business service entity containing one or more binding template information elements and each binding template containing one or more references each referring to a technical model information element.

14. A registry service for handling user requests to access business entity definitions, providing the service comprising the steps of:

receiving a request from a user to access a business entity definition;

obtaining, from data associated with the request, the identity of the user;

determining, from permission details associated with the business entity definition and the identity of the user, whether the user has permission to access information in the business entity definition; and

denying the user access to information in the business entity definition if it is determined that the user does not have permission;

wherein the information in the business entity definition comprises a plurality of information elements and at least one of the plurality has permission details associated therewith; the step of determining determines from permission details associated with a respective information element whether the user has permission to access that information element; and the step of denying denies the user access to those information elements for which it is determined that the user does not have permission.

15. A computer program product comprising instructions which, when run on a data processing host, cause said data processing host to carry out a method according to any one of claims 1 to 7.